Improving student retention in higher education

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As a key performance indicator in university quality assurance processes, the retention of students in their studies is an issue of concern world-wide. Implicit in the process of quality assurance is quality improvement. In this article, we examine student retention from a teaching and learning perspective, in terms of teaching and learning approaches that have an impact on students’ decisions to continue with or withdraw from their studies. The major need is to engage students in their studies, and in this article we discuss ways that student engagement can be facilitated through the teaching and learning programme in higher education currently.

Introduction

An issue of concern in higher education institutions across the world is the retention and success of students in their studies. This is a particularly pressing issue in the context of widening participation for under-represented student groups, increasing student diversity and educational quality assurance and accountability processes. As well as the personal impact and loss of life chances for students, non-completion has financial implications for students (and their families), and for society and the economy through the loss of potential skills and knowledge. There are also financial and reputational implications for higher education institutions. While students who do not complete may still benefit from skills developed, including increased confidence and life experiences (Quinn et al., 2005), in the current competitive and globalised higher education market, the reputational fall-out of low student retention and high student attrition figures can be damaging for institutions (Yorke and Longden, 2004).

The importance of student retention in Australia is underscored by its inclusion via institutional statistics as a key performance indicator in educational quality and in the allocation of the Commonwealth Government’s Learning and Teaching Performance Fund. Student attrition and retention rates are defined as ‘... the percentage of students in a particular year who neither graduate nor continue studying in an award course at the same institution in the following year’ (Department of Education, Science and Training, 2005). Retention statistics are also used to measure institutions’ equity...
consideration of the impact and effect of the quality assurance activity (Stensaker, 2008), of how ‘the core processes of higher education – teaching and learning – are improved’ (Stensaker, 2008, p. 60) – and the impact this has on student retention and success rates.

Despite the unstated objective of improvement in quality assurance and in the Learning and Teaching Performance Fund, which aims to reward excellence, it is not clear how statistics might promote improvement (Walshe, 2008, p. 275). Stensaker (2008) has argued that to achieve quality teaching and learning emanating from quality assurance, there needs to be movement beyond definitions and technical processes, with attention placed on good teaching and learning practice, which should then underpin statistical improvement. For student retention, the more micro-level issues involve outlining the teaching and learning factors that promote student continuation with their studies. While factors such as the personal and course selection are largely beyond the power of the teachers, they may ask what they can do to enhance the possibility of students continuing with their studies.

The phenomenon of breaking student retention into its component parts from a teaching and learning perspective provides guidance for institutions and teachers in educational quality improvement. In this article we discuss factors that have an impact on student retention from the teaching and learning view, of which the most significant is the students’ experience of university (Scott, 2005) and the need for students to be engaged in their studies. Drawing on the premise of our recent publication (Crosling, Thomas and Heagney, 2008) and that also espoused by Tinto (2005) of the range of factors in contemporary higher education that have an impact on students’ retention. These include: pre-entry information, preparation and admission processes; induction and transition support; learning, teaching, assessment and curriculum development; social engagement; student support, including financial and pastoral services; and improved use of institutional data (Jones, 2008). The academic experience, and in particular the teaching, learning and assessment practices are within the control of teachers. We point out that what goes on in the teaching and learning programme is significant in student retention.

In Australia and world-wide, student engagement is generally acknowledged as a key factor in student retention, and enhancing student engagement is a fundamental strategy for improving student retention, success and outcomes (McInnes and James, 1995; Horstmanshof and Zimitat, 2007; Chen, Lattica and...
Hamilton, 2008). Krause and Coates (2008) point out that in first year studies, it is crucial to encourage and assist student engagement as the foundation for successful study in later years. Student engagement is defined as a student’s academic commitment and application (Horstmanshoff and Zimitat, 2007, citing Astin, 1984) and shown in time and energy devoted to activities that are educationally purposeful. This also connotes the quality of student effort and students studying for meaning and understanding (Marton and Saljo, 1984) thus reflecting a constructivist approach to learning (Lawrence, 2005).

However, engagement is not the sole responsibility of the student as it concerns students interacting with the learning environment (Bryson and Hand, 2007), rather than being passive within it. Thus managers and teachers have some responsibility to provide a setting that facilitates students’ engagement and learning, that ‘gets students to participate in activities that lead to success’(Kuh, 2003, cited in Kezar and Kinzie, 2005, p. 150).

In our publication (Crosling, Thomas and Heagney, 2008), we point out the value of student-responsive curriculum development as a means to promote student engagement. This refers to students being immersed in authentic curriculum contents and tasks that are challenging and relevant to students’ lives and futures, appropriate orientation or induction procedures, and the integration of study skills. Concurrently, students benefit from collaborative learning situations, where learning is active and interactive between students and their peers in and outside the classroom, as well as with the teachers. Formative assessment is crucial, providing immediate and relevant information for students’ academic development needs at the particular point in time.

Further to this, Chen et al. (2008) argue that academic success which underpins student retention requires more than acquisition of knowledge; and that the classroom is an important introductory point for helping students to begin to master key disciplinary concepts. In support of this, Meyer and Land (2005) put forward the pivotal role of students’ understandings of what they call disciplinary threshold concepts for academic survival and success. The implication here is that the classroom needs to include active and interactive learning as the basis for developing understanding of core disciplinary concepts, and these underpin academic success with strong implications for student retention.

There is thus a ‘dynamic interplay’ (Brysen and Hand, 2007) between student engagement, the quality of student learning and the teaching and learning context. In support of this view, Chen et al. (2008) identify engagement as being composed of the two aspects of the degree of time and effort students use for education, but also the ‘way an institution organises learning opportunities and services’ (Chen et al, 2008, p. 340) so as to encourage students to take part in and thus benefit from activities. The curriculum in a broad sense, or the teaching and learning programme, provides an ideal forum for approaches and strategies that encourage students to engage, as it is experienced in one form or another by all students (Crosling, Thomas and Heagney, 2008).

Tinto (2000) also points out that the class room is often the only setting in which students meet other students and their teachers. Tinto (2000) expands on some conditions that underpin students’ engagement and thus their persistence in their studies. These include the institution and teachers holding high expectations of students in their learning, but also recognising that many commencing students may not be adequately prepared for the rigours of academic study and the concurrent need for academic support, especially in disciplinary contexts, that help students to ‘know the rules’ (Tinto, 2000, p. 91). According to Tinto, feedback about academic performance is important for students in academic success, and involvement with fellow students in learning in the classroom (Tinto, 2000).

The current interest in student engagement has occurred in a climate where higher education has moved to a massified system with fewer resources so that over decades, there has been concern about the development of student learning in the higher education teaching and learning context. For instance, Kezar and Kinzie, (2005, p. 149) cite Altbach (1997) that these factors have contributed to increased movement towards the lecture method of teaching from the early part of the last century in America, which has led to less interaction between students and teachers, and several higher education commentators have noted
that learning is less likely to occur in such large, impersonal and passive learning environments (Astin, 1993; Chickering, and Gamson, 1987, cited in Kezar and Kinzie, 2005, p. 149). Supporting this, Brysen and Hand (2007) point out that engagement can be fostered by student-centred conceptual orientation compared with teacher-centred content orientation in teaching.

**Curriculum development**

The curriculum is experienced by all students, albeit in different forms. Indeed, for many non-traditional student groups the formal learning experience is the majority or only part of their student experience. In other words, because they live off campus, study at a distance and/or part-time, and/or have work and family responsibilities, they might not be able to participate in extra curricular activities, social and sporting events and informal learning and socialising. There is a body of evidence from the US (and increasingly in other countries) that the more students interact with other students and staff, the more likely they are to persist (e.g. Astin, 1984; Tinto, 1997). Furthermore, both social and academic integration into a higher education institution have a positive impact on their sense of belonging to (Reay et al., 2001), and ultimately retention within, that environment (Thomas, 2002).

Despite different modes of delivery and forms across disciplines, the curriculum forms a platform for the implementation of approaches and strategies that engage students in their university experience. The notion of curriculum is used in divergent ways both within and across HE systems, and often without a shared understanding of its meaning (Fraser and Bosanquet, 2006). We are using the term here in a broad way, to include learning, teaching, assessment, academic support and induction, as well as programme contents. We view the curriculum as the primary way to engage students both academically and socially, and to build institutional commitment (Berger & Braxton, 1998) and belonging (Leathwood and O’Connell, 2003; Read et al., 2003; Thomas 2002).

Several factors are important in improving student retention and success:

**Orientation and induction**

Traditionally higher education institutions have offered new students a ‘Welcome’ or ‘Freshers’ week on arrival. Using teacher-centred methods of communication, the emphasis has been on conveying the status of the institution and overloading students with information. More recently, there has been greater recognition of the need to induct students into the wider higher education environment via more student-centred strategies to enable students to learn about and understand the expectations and culture of higher education (Yorke and Thomas 2003; Crosling, 2003). Some institutions are now introducing ‘longer and thinner’ induction that starts earlier and lasts beyond a week (Layer et al., 2002, Thomas et al., 2002b).

This provides a more effective opportunity for new students to assimilate and make sense of the information provided, to socialise with the staff and existing students through a range of activities and to feel that they belong in the higher education community at their institution (Thomas et al., 2005b). Early engagement could include the provision of timetables, course handbooks and reading lists, summer schools, or materials accessed via a virtual learning environment. Early engagement can benefit students by preparing them for their course, demonstrating what will be expected of them, and assisting them to feel a part of the institution. Institutions are increasingly interacting with students prior to entry to develop institutional and course commitment and engagement.

Integration of the induction process into the subject specific curriculum helps students to learn in the context of their discipline (Ward, Crosling & Marangos, 2000). For example, some institutions have an accredited first semester induction module, which is discipline based, and involves group work to explore aspects of the transition process. This can be assessed using transparent and formative approaches to allow students to develop the skills and understanding of learning in higher education, whilst also developing their subject-based knowledge. Such approaches to induction enable students to adjust their expectations of learning, teaching and assessment, and encourage staff to use learning and teaching strategies that enable students to engage and feel included in their studies. This requires a responsiveness to students, and a student-centred, rather than a teacher-centred, approach to the learning process.

**Authentic curriculum**

The curriculum is usually situated within a discipline, which determines the curriculum contents and the disciplinary norms and expectations that shape the academic culture and values and the ways of learning which are expected or assumed. A significant factor
in students’ success or otherwise in their learning in higher education and in the disciplines is the intention with which they approach their studies (Marton and Saljo, 1976). This affects the degree to which the students engage with their subjects. If they study with a ‘deep’ approach, they are seeking understanding and meaning. Alternatively, with a ‘surface’ approach, students have the intention of rote-learning information, without linking knowledge and understandings. A strategic or achieving approach is one where the intention is to obtain a high grade (Biggs 1987). Arguably, students who are engaged, deriving meaning and understanding from their studies and therefore demonstrating a deep approach to learning, are more likely to continue.

It is argued that the curriculum ought to be culturally relevant to support widening participation and to prepare graduates for living and working in a diverse society (Crosling, Edwards & Schroder, 2008). For example, Dibben (2004) explores the influence of socio-economic background on students’ experiences of studying music. A small number of students felt that they did not fit into the department, and believed the curriculum was ‘too traditional’ (as it focused on classical music). In relation to working class mature students Bamber & Tett (2001) recommend that relevant course material is used. Similarly, Haggis & Pouget (2002) suggest that to support first generation entrants, links need to be made between the curriculum and students’ own experiences and views of the world. Houghton & Ali (2000) explore the development and delivery of a culturally relevant curriculum with Asian women, and encourage students to offer feedback about their educational provision to assist future development of the curriculum.

The curriculum can also be relevant to students’ future aspirations – to help build institutional commitment (Berger & Braxton, 1998) by reinforcing how successful completion of the course will lead to, for example, a chosen career area. Blackwell et al. (2001) argue that the higher education curriculum should offer students the opportunity to reflect on employment and other experiences to explore the learning and skills development that is involved in these activities. Barrie (2005) similarly argues that the undergraduate curriculum from the first year onwards should assist students to develop ‘graduate attributes’, which, amongst other things, will assist them in future employment, and life more generally. The need for learning and teaching to develop personal, social and employability skills is supported by empirical research with 400 students at the start of their course and following graduation (Glover et al., 2002). Glover et al. argue that the extension of partnerships between higher education and employers are essential to improve the employability of graduates.

Purcell et al. (2002) suggest that work placements offer both students and employers opportunities: students gain valuable skills and demonstrable competencies and employers are able to recruit graduates from a wider pool. In addition, students are increasingly engaged in part-time employment, and so this offers a way to capitalise on this experience, and better prepare students for graduation (not just in terms of employment but more generally). Thus, part of the learning experience should prepare students for graduation in the broadest sense and should contribute to the validity and authenticity of the curriculum for all students.

**Student-centred active learning**

There is a consensus that interactive as opposed to didactic teaching improves academic success and promotes the inclusion of learners who might feel like outsiders (Crosling, As-Saber & Rahman, 2008; Parker et al., 2005; Haggis & Pouget, 2002; Thomas, 2002; Bamber & Tett, 2001). Student-centred learning conceives of students as playing a more active role in their learning processes. Active learning is often associated with experiential, problem-based and project-based learning, and other forms of collaborative learning, and less reliance on the large lecture format. Kolb’s (Kolb, 1984) work on the theoretical foundations of experiential learning can be seen to underlie all of these approaches to learning (Tight, 2002, p. 106). Broadly, experiential learning relates to the knowledge and skills gained through life and work experience, but different interpretations have extended the notion of experiential learning to ‘meaningful discovery’ learning (Boydell, 1976). This has given rise to approaches such as problem-based and project-based learning, which are educational approaches that make use of the learning strategies suggested by the theories of experiential learning within the classroom context. These forms of teaching promote collaboration among students to solve problems, and by using realistic problems or situations for learning, a deeper understanding of the relationship between theory and practice can be developed and understood by students (Tight, 2002, p. 108).

The benefits of student-centred learning that includes greater staff-student and peer interaction can
be understood in relation to the social and emotional dimension of learning. This engagement influences students’ sense of belonging and their motivation and achievement (Thomas, 2002; Askham, 2004; Košir & Pecjak, 2005). Pedagogies that involve students as active learners, rather than as recipients of knowledge, show respect for students’ views and experiences, and therefore diversity and difference is less likely to be problematised and more likely to be valued within a transformative model of higher education (Bamber et al., 1997; Jones and Thomas, 2005). Tinto found that students benefited from and enjoyed being part of ‘learning communities’, which forged interaction between students to facilitate their learning both inside the classroom and beyond (Tinto, 1998, 2000). Similarly Warren (2003) reviews existing literature and finds that student-centred, discussion-based and group-based learning activities promote:

- Enhanced student participation and interaction.
- More willingness by students to express their ideas.
- Improved communication among students in culturally diverse classes.
- Better adjustment to university study (for international and UK students).
- A shift towards deep learning as a space is created for learners to test out new concepts.
- Increased motivation, quality of discussion and level of analysis (from Warren, 2003, p. 3).

Student-centred interactive learning does not only have to occur in small groups, but methods can be developed and utilised to teach large classes too. Warren (2003) identifies different methods that have been employed with large groups of students:

- Collaborative learning groups (3–5 students) working on tasks during lecture periods.
- Group presentations and interactive lectures featuring discussion of concepts and application to practical exercises.
- Teaching via sessions that combine exposition and work on tasks in medium-sized groups (about 20 students), instead of whole class lectures.
- Resource-based learning in project study groups (6–10 students), culminating in a set of class debates to exchange knowledge gained. (From Warren, 2003, p. 4)

It is the development and utilisation of such learning and teaching strategies that promote a more active, student-centred approach to learning, which draws on students’ previous experiences and interests, that helps to enhance student engagement, course commitment and retention on the programme. ICT can offer teaching staff new ways to develop problem-based and project-base learning activities.

**Integration of study skills**

There are different models of providing study skills and academic support. Warren (2002) identifies three ways of providing academic support: separate, semi-integrated and integrated curriculum models, and similarly Earwaker (1993) identifies traditional pastoral, professional and an integrated curriculum model as ways of providing both academic and pastoral support. Research on widening participation points towards the value of integrated models, particularly of academic support, with the provision of one-to-one support (Bamber & Tett, 2001; Comfort et al., 2002) and access to additional support as required (Comfort et al., 2002).

Similarly, Warren argues that a mix of semi-integrated and integrated models of curriculum provision offers better prospects for helping a wide spectrum of students to succeed at university. Integrated approaches are favoured as research shows that many students who would benefit from academic and other support services are reluctant to put themselves forward (Dodgson and Bolam, 2002), therefore a proactive or integrated approach helps to reach all students. Layer et al. (2002) found that many higher education institutions with a commitment to wider access and above benchmark levels of retention have one-stop-shop student services. This type of provision not only makes it easier for students to access academic and pastoral services, but it also encourages students to use the facilities by including services that all students may need to access and which are not stigmatising (e.g. accommodation office, sport and recreation, registry etc.) (see Thomas et al., 2002a).

**Formative assessment**

Many students struggle to make the transition from a more structured learning experience in schools and colleges to the greater autonomy in higher education. Pedagogical research, especially with non-traditional students, reports that formative assessment offers an integrated and structured approach to equipping all students with the information and skills they need to make a successful transition into higher education and to continue to succeed academically. For example, George et al. (2004) found that the nature of assessment used was significant to students’ experience and
engagement with the course. They suggest that the incorporation of both summative and formative assessment helps to build confidence, a positive attitude towards learning and successful engagement with the cognitive demands of the programme. Similarly, Bamber & Tett (1999) found that non-traditional students, and particularly mature learners, benefited from formative feedback. For example, formative assessment can offer students:

- Space to explore, try out different approaches and develop their own ideas.
- An opportunity to become aware of their own progress and find out about themselves as learners.
- An opportunity to negotiate with tutors and/or peers on matters of assessment including the allocation of marks (Povey & Angier, 2004).

Formative feedback is integrated into the learning experience, and so does not detract from discipline-focused teaching and it reaches all students, not just those who have the knowledge and confidence to seek support. Furthermore, formative feedback provides a vehicle for interaction between students and staff, thus helping to develop student familiarity and confidence to approach staff for additional clarification and guidance if necessary. Feedback information can also be used by staff to realign their teaching in response to learners’ needs. Formative feedback offers an integrated approach to providing students with clarity about what is expected of them, and a way of engaging with peers and teaching staff to discuss academic issues in a safe environment so that they develop the skills, understanding and integration they need to succeed. Furthermore, formative assessment can be used to promote an active approach to learning, as students are encouraged to reflect on the learning process, rather than just the outcomes.

### Teachers – know your students

This seems an obvious dictum but it is not always easy to achieve when much university teaching takes place in large lecture theatres. Whilst it is widely accepted that teachers can no longer assume all students have the same background knowledge, it is very difficult to structure classroom learning to incorporate the interests and experience of all students when teachers don’t know their students. However, imaginative use of curriculum can go a long way to meeting this need.

For instance a lecturer at Monash Malaysia wished to develop the cultural understandings of his engineering students who came from many different backgrounds. He also wished to provide a setting in which they could improve their confidence in their English language and communication skills, both of which are important for engineering graduates once they enter the work force. He organised the students to work together in small groups and give presentations to the class on the cultural backgrounds of each of the members of their small teams. This gave them opportunities to make social connections while hearing about the diverse backgrounds of their classmates. The students developed increased tolerance of each other and a fuller understanding of cultural diversity as well as improved English language and presentation skills (Teoh, in Crosling, Thomas and Heagney (eds) 2008, pp. 52–6).

### Programme organisation

When teachers know something of the lived experience of their students, they can organise teaching programmes which facilitate the students’ maximum represented groups (Yorke in Ferrier and Heagney (eds) 2008). For many of these students, time constraints mean the classroom is the only element of university life they experience. In Australia this is particularly so for the large number of students with work and family responsibilities. A 2001 national study revealed that approximately 70 per cent of full time students worked nearly 15 hours per week (Long and Hayden, 2001). Consequently, it is in the classroom that the opportunity to engage students is either made or lost.
participation. Questions which teachers can ask of themselves to effect this outcome include:

• Do you know which students have family responsibilities and which students have work responsibilities?
• Do you consider students work and family responsibilities when you schedule assignments and examinations? For example, are assignments and class tests due at the end of the school holidays when students who are parents have their school aged children at home with them?
• Do you arrange for all assignments to be completed at the same time assuming that students have all day and part of the night to do them?
• Do you organise guest lectures at times that suit students with work and family commitments?

**Same classroom – different cultures**

At another level, classrooms and lecture theatres provide teachers with opportunities to model inclusivity by eliminating local jargon from their speech, using global events to illustrate their points rather than references to the local football team or pub. In many cases a student’s appearance can alert teachers to the fact that they need to employ these broader approaches to their teaching. But there are many students from diverse backgrounds whose appearance does not prompt teachers to make their teaching more inclusive.

**Other cultural issues**

The classroom provides lecturers with opportunities to link into students’ values such as the value of work, struggle, persistence, and resilience.

Some students who are first in their family to access higher education also have overcome barriers such as poverty, poor primary and secondary education experiences to get into university. Many have extraordinary persistence and resilience which, if acknowledged by their teachers, can assist in engaging them in their studies. Similarly refugee students from war-torn countries may have exhibited great courage in re-locating to a new country. How often are their experiences outside the classroom acknowledged?

**Practical issues**

There are very practical strategies lecturers can employ in the classroom to assist students, particularly those from under-represented groups, to succeed and persist at university. By talking about student support services in their first lectures for the year, teachers can play an important role in linking students to relevant supports such as counselling, disability services and career advice. While equity group students tend to need and use support services more than non-equity group students, they often lack the confidence to go and seek them out for themselves.

**Conclusion**

Quality assurance and accountability are integral to higher education in Australia and globally. One significant indicator of this is the retention of students in their studies. In this article, we point out that the collection of statistical data alone is limited in its impact on educational quality improvement, which is implicit in quality assurance objectives. One way to improve quality in regard to student retention is to identify influences and causes of student retention and attrition. Engaging students in their studies has been identified as important in retaining students and stemming attrition. Institutions have also shared responsibility to facilitate student engagement.

Various teaching and learning approaches to encourage students to engage with their studies and their institution have been surveyed in this article and include:

• Early engagement through pre- and post-entry induction activities.
• Greater understanding of the diversity of students, including where they have come from, what they are interested in and their aspirations. This in turn can inform the organisation of the programme and curricular contents.
• Authentic and relevant curricula, building on students’ previous experiences, interests and future aspirations, and using inclusive language and relevant examples.
• Student-centred active learning designed to involve students in the learning process.
• Integration of study skills to support the success of all students, and signing posting students to access other support services as necessary.
• Formative feedback which is relevant and integrated into the learning experience in a timely and constructive way.

There are many reasons why students leave higher education early, some of which may not be wholly negative, but there are usually financial implications for withdrawing students and there may be other personal consequences. Similarly, there are pecuniary and reputational implications for institutions. Some reasons why students leave are beyond the control of...
institutions, but the organisation and delivery of the curriculum is an area over which universities and colleges have significant autonomy. Addressing student retention via learning, teaching and curricular developments has the advantage of meeting the needs of all students – not just those either identified as at risk, or who proactively seek additional support.

In the context of equality and diversity legislation, the requirement for institutions in the UK is to proactively make anticipatory changes, which promote the success of all students. In Australia, the mandate is for specialised provision but not necessarily anticipatory and higher education institutions provide tailored support for under-represented/disadvantaged groups of students. Both of these approaches help to shift the institutional response away from a deficit approach by implementing practices which assist all students to improve and prosper – irrespective of their starting position.

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References

Altbach, P 1997, Student Politics in America. Transaction, New Brunswick, NJ.


Boyde, T 1976, Experimental Learning. Manchester: University of Manchester Department of Adult Education.


student_retention_and_success> [accessed 24th July 2008].


Kuh, G 2003, 'How are we doing at engaging students?', *About Campus*, 8 (1), pp 9-16.


Leathwood, C & O’Connell, P 2003, 'It’s a struggle': the construction of the ‘new student’ in higher education', *Journal of Educational Policy*, 18(6), pp.597-615.


McInnis, C & James, R 1995, *First Year on Campus: Diversity in the Initial Experiences of Australian Undergraduates*. Canberra: AGPS.


Povey, H & Angier, C 2004, ‘I can do it, but it’ll be a battle’: finding her place as an undergraduate mathematician’, Sheffield Hallam University.


Yorke, M 2008, ‘Is the first year experience different for disadvantaged students?’ in Ferrier, F & Hegney, M (eds), *Higher Education in Diverse Communities: Global Perspectives Local Initiatives*, Dublin, Higher Education Authority, pp.113-120.
